

540

AVIAN HAZARD ASSESSMENT UNDER FLIGHT PEN
CONDITIONS - AN ALTERNATIVE TO FIELD TESTING.
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Flight pen assessment offers an effective alternative to field studies to evaluate potential hazards of pesticides to birds. Use patterns particularly amenable to flight pen evaluation include seed treatments and granular formulations. Flight pen testing enables the collection of behavioral and physiological data on free-flying, free-foraging birds exposed to the pesticide. At the same time, the investigator can control relevant variables, such as the (1) size and composition of the test flock, (2) birds' access to the pesticide treatment, and (3) availability of alternate resources. Behavioral responses of individuals can be recorded over time, and birds can be trapped as often as needed to obtain physiological data. Unlike field studies, mortality in a flight pen can be unambiguously quantified (no need for elaborate carcass search procedures) and sublethal behavioral effects can be readily observed and documented. Furthermore, flight pen studies provide opportunities for realistic appraisal of techniques to reduce exposure of birds to hazardous pesticides. Examples of studies conducted in a 0.2 ha flight pen illustrate the use of this testing approach.